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Notice of Allowability	Application No.	Applicant(s)	
	10/706,856	KRIG ET AL.	
	Examiner	Art Unit	
	Jessica L. Reidel	3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's RCE of 10/05/2006.
2. ☒ The allowed claim(s) is/are 1-8 and 10-45.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>10/05/2006</u> 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r. Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on October 5, 2006 has been entered.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on October 5, 2006 has been acknowledged and is being considered by the Examiner.

Allowable Subject Matter

3. Claims 1-8 and 10-45 are allowed.

4. The following is an examiner's statement of reasons for allowance:

Mann (U.S. 5,800,472) discloses measuring battery terminal voltage and comparing the measured voltage to a threshold, where the threshold is a function of the rate of charge being delivered by the battery. The Mann reference, however, does not actually measure the rate of charge being delivered by the battery, it only uses two possible voltage thresholds for comparison (one threshold when the pacemaker is operating in rate-responsive modes -- i.e. the

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rate of charge being delivered by the battery is high and another threshold when the pacemaker is not operating in rate-responsive mode -- i.e. the rate of charge being delivered by the battery is low).

Kroll (U.S. 5,925,068) discloses a method comprising measuring a battery terminal voltage V_{BATT} of a battery 10 of an implantable medical device and *measuring a rate at which charge is delivered by the battery 10* during a first time period after the device has been implanted and before the battery terminal voltage falls below a first voltage threshold. Kroll specifies that recommended replacement time (RRT) signals are issued by the device, read as an indication of the available or depleted battery 10 charge, if either the measured battery terminal voltage V_{BATT} falls below a predetermined first voltage threshold and/or if the measured rate at which charge is delivered by the battery 10 exceeds a predetermined threshold (see Kroll Abstract, Figs. 1-3, column 1, lines 9-16, column 4, lines 16-64 and columns 11-14). The first voltage threshold of Kroll is *not* a function of a measured rate at which charge is delivered by the battery, but rather the first voltage threshold is programmed into memory depending on the type of battery used in the device and the parameter characteristic curve of that battery (see Kroll column 14, lines 26-55). Kroll fails to disclose the steps of using *measured charge* to calculate an available or depleted battery charge, rather Kroll only measures the rate of charge delivered by the battery, *not the charge itself* (i.e. current).

Podrazhansky et al. (U.S. 6,281,683) and Podrazhansky et al. (U.S. 6,307,379) both teach that it is well known to measure battery voltage during periods of rest and during periods of discharge and then use the difference of those measured voltages to determine a charge parameter of a battery using a look-up table, equation or algorithm. Neither Podrazhansky et al.

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(U.S. 6,281,683) or Podrazhansky et al. (U.S. 6,307,379) teach the steps of measuring a battery terminal voltage of a battery, measuring a charge delivered by the battery during a first time period and before the battery terminal voltage has fallen below a first voltage threshold, where the first voltage threshold is a function of a measured rate at which charge is delivered by the battery, calculating an available or depleted battery charge using the measured charge delivered by the battery during the first time period, communicating to a user an indication of the available or depleted battery charge.

The references of the prior art fail to show or teach *all* of the Applicant's claimed invention and fail to show or teach any obviousness type improvement over the prior art and as a result, the Examiner deems these claims and their depending claims to be allowable over the prior art. Specifically, the state of the art fails to show a method comprising the steps of measuring a battery terminal voltage of a battery, measuring a charge delivered by the battery during a first time period and before the battery terminal voltage has fallen below a first voltage threshold, where the first voltage threshold is a function of a measured rate at which charge is delivered by the battery, calculating an available or depleted battery charge using the measured charge delivered by the battery during the first time period, communicating to a user an indication of the available or depleted battery charge.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion


6. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica L. Reidel whose telephone number is (571) 272-2129. The examiner can normally be reached on Mon-Thurs 8:00-5:30, every other Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jessica L. Reidel 11/02/06
Examiner
Art Unit 3766


Robert E. Pezzuto
Supervisory Patent Examiner
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